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SIRTF First Look Survey

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Abstract

The FIRST Look Survey (FLS) will be the first science program executed by the Space InfraRed Telescope Facility (SIRTF), the last of NASA's Great Observatories. The FLS will characterize the mid-infrared sky to levels up to two orders of magnitude deeper than presently known. The extragalactic component of the FLS comprises imaging of 5 square degrees of sky at high ecliptic latitude at 3, 4.5, 5.6, and 8 microns using the InfraRed Array Camera (IRAC) and 24, 70, and 160 microns using the Multiband Imaging Photometer for SIRTF (MIPS).

The 5-sigma flux limits for the IRAC bands will be approximately 50 uJy and for the MIPS bands will be approximately 1.5 – 30 mJy. In addition, "verification" surveys with approximately 10 times the exposure time of the main surveys will be carried out covering 0.1 – 0.25 square degree regions.

Ancillary data is already being obtained for the selected fields. NOAO provided time for deep R-band imaging (25.5) with the Mosaic camera and VLA time has been allocated for a radio survey at 1.4 GHz to a 5-sigma sensitivity of 90 uJy. Near-infrared observations will be taken this spring with FLAMINGOS at the KPNO 2.1m (J~20.5, K~19.5).

The data from the FLS will be made publicly available as soon as they are deemed reliable for scientific analysis. All of the FLS data will be publicly available in time to support the second General Observer Call for Proposals.